EFFECTS OF RURAL-URBAN MIGRATION ON YAM PRODUCTION IN EZZA SOUTH LOCAL GOVERNMENT AREA OF EBONYI STATE, NIGERIA.

S. O. MBAH
Department of Agricultural Extension and Management,
Federal College of Agriculture, Ishiagu, Ebonyi State.
Email: samuchembah@gmail.com

ABSTRACT
The Study was conducted in Ezza South Local Government Area of Ebonyi State, Nigeria; to determine the effects of rural-urban migration on yam production. Data were collected by means of structured questionnaire and interview schedule administered to the respondents. A multi-stage sampling technique was used to select one hundred and twenty respondents. Data collected were analyzed using descriptive statistics and relevant statistical tools. Results showed that both married men and women were involved in yam production in the study area, but the male predominates the females. Most of them were still in their economic active ages of between 21-60 years; and also have one form of formal education or the other. The rate of migration in the area was close to high and a mean migration rate of 48.67%. The main causes of rural-urban migration in the area; among others were rural poverty, famine, crop failure, unemployment and scarcity of food. The worst disastrous effects of rural-urban migration in the study area were uneven populated growth, increase in work load, unplanned urbanization, Growing urban crimes, congestion and political instability. White yam (Dioscorea rotundata) and Water Yam (Dioscorea alata) were commonly cultivated varieties in the study area. The major challenges faced by the yam farmers in the area were: Low Productivity, poor market outlets, poor access to extension services, high illiteracy level, bad road networks, inadequate capital and high cost of fertilizers; among others. Governments in Nigeria through their various agencies such as Ministry of Agriculture and Rural Development should in certain situations provide seed yams, fertilizers, agro-chemicals, and other inputs to yam farmers at affordable prices in the area in order to increase production and yield. In addition, Aggressive infrastructural development should be carried out in the study area by the Government in power so as to encourage the rural dwellers to remain there and practice agriculture; thereby helping to reduce rural-urban migration.

KEYWORDS: Rural-Urban, Migration, Yam Production, Ezza South L.G.A, Ebonyi State, Nigeria.

INTRODUCTION:

Agriculture plays a critical role in the economic development of most African countries. In Nigeria, it is estimated that about 75% of her total population lived in the rural areas and obtain their means of livelihood from agriculture (Oyakhilomen and Zibah, 2014). Unfortunately, many factors have been contributing to the poor performance of this all important sector in recent times. One of such factors is the rural-urban migration, (especially in youths) which involves the movement of labor force from rural areas to urban areas in search of employment, better living conditions, freedom of religion; among others; thereby resulting to shortage of agricultural labor force (Lull et al, 2006; Vercueil, 2004).

Migration is a regular occurrence in the life of a nation (Ofuoku, 2012). It is the movement of people from one geographical location to another; which maybe on temporary or permanent basis. People migrate based on the pr5evailing conditions and the reasons for it vary from one person to another depending on the situation that brought about the decision. (Adewale, 2005).

Furthermore, migration occurs as a response to economic, social, cultural, environmental and political factors affecting the places of origin, as well as destination. People tend to move away from a place due to the need to escape from violence, political instability, drought, congestion in various dimensions and suspected or real persecution (Adewale, 2005). Also, adverse physical conditions such as flood, landslide (erosion and earthquake), insects and pests, soil infertility contribute largely to the reasons why people leave one environment for another.

Both internal and international migrations are common features of both developing and developed countries. Internal Migration in this context, refers to the movement of people within their country of origin (in-migration and out-migration), which could be due to various social, economic and political factors. International migration on the hand is the movement of people outside their country of origin (emigration) into another country (immigration) (Nwajiuba, 2005).

However, rural-urban migration is the dominant pattern of internal migration. The movement of people is a selective process that affects individuals or families with particular economic, social, educational and demographic characteristics (Olayide, 2014). Other

factors, such as social opportunities and government policies favorable to cities have also helped to sustain rural-urban migration since the oil boom (Afolabi, 2007).

Nigeria is one of the countries in the world with very high rural-urban dichotomy. Although the nation is generally characterized by poor social amenities, both in quality and quantity, rural communities are disproportionately more disadvantaged than urban centers due to government neglect. Consequently, the number of rural inhabitants that migrates to cities with high hopes of overcoming powerlessness consistent with rural life is unprecedented (Nwokocha, 2007).

In Nigeria, as in other developing countries of the world, internal migration has become a major issue influencing government policies and programme efforts. Crucial among these issues, are the problems of unplanned urbanization, growing urban crimes, rural poverty, neglect of agriculture and unbalanced population concentration. These suggest the effect of dominant pattern of rural-urban migration and its effect on the national life (Kirwin and Anderson, 2018).
Sanchez (2017) posited that people tend to be pulled to the areas of prosperity and pushed away from areas of decline. Thus, migrants are usually concerned with the benefits they hope to gain by moving and usually given less thought to the problems that may be generated as a result of the process; which include pressure on fragile urban infrastructure and possible environmental degradation. Rural-urban migration in Nigeria is therefore, inevitable and sometimes a desirable resultant effect of industrialization.

Interestingly, Nigeria is practicing a non-regulatory system which allows for uncontrolled internal migration. Nwokocha, (2007) had opined that the decision to out-migrate to urban centers is not usually agonizing as a result of the perceived advantages of doing such. Perhaps, this is very easy mental process which is more than unavailability of infrastructures and this explains the mass movement of rural dwellers to the cities.

Yam botanically belongs to the genus "Dioscorea" and to the family of "Dioscoreaceae" is widely grown throughout the (Sub-Sahara Africa (IITA, 2009). It is among the oldest recorded food crop and ranked second, after cassava as a major source of carbohydrate in the diet of Nigeria and West African Sub-region (Agwu and Alu, 2005).

It is one of the annual root and tuber crops commonly grown in Nigeria. Yams are herbaceous plant cultivated for consumption of their starch; tubers in many temperate and tropical regions of the world; especially in Latin America, Africa, Asia and Oceanic (Ike and Inoni, 2006).

Yams (Dioscorea Species) are annual root tuber bearing plants with more than 600 species out of which only six are socially and economically important in terms of food, cash and medicine (IITA, 2009). Some of the yam species are white yam (Dioscorea rotundata), Water yam (D. alata); Yellow yam (D. Cayanensis); trifoliate yam (D. dumetorum); Chinese yam (D. esculanta) and aerial yam (D. bulbifera) (Ike and Inoni, 2006; Olubukola and Bolarin, 2006: Zaknayiba and Tanko, 2013). Out of these, white yam (D. rotundata) and water yam (D. alata) are the most common and most economically important species in Nigeria. Yams are grown in the coastal region in rain forests, wood savannah and Southern Savannah habitats.

Yams are the fifth most harvested crops in Nigeria, followed by cassava, maize, guinea corn and cowpeas; while cassava and yams are the most commonly harvested tuber crops in the country (NBS, 2012). Yams do not only serve as the main source of earnings and food consumption, but also serve as a major employer of labor in Nigeria. However, as rural labor becomes more scarce and expensive, the price of inputs increase, the cost of yam in the market also increases; thereby making it a luxury food, rather than a staple (Ike and Inoni, 2006).

In Nigeria, yam is part of the religious heritage of several tribes and often plays a key role in religious ceremony (Sanusi and Salimonu, 2006). In fact, many important cultural values are attached to yam, especially during wedding and other social ceremonies. In many farm communities in Nigeria and other West African Countries, the size of yam enterprise that one has is a reflection of the person's social status. In fact, due to the importance attached to yam, many communities celebrate the "New Yam Festival" annually (Izekor and Olumese, 2011).

Despite the importance of yams to people, the attention to production is still questionable (Verter & Becvarova, 2014). Also, migration of young adults from rural to urban area, places a greater burden on the yam farmers which is one of the contributory factors to decline in yam production in Nigeria.

Some researchers have empirically investigated factors that determine the level of yam production in Nigeria and elsewhere in the world. For instance, Bamire and Amujoyegbe (2005) found a positive relationship between net returns in yam output and land improvement techniques in Nigeria. In the same vein, studies by Zaknayiba & Tanko (2013) revealed that lack of access to inputs, finance, poor producer prices, inadequate storage facilities, incidence of pests and diseases have negatively affected yam production. Similarly, Ike and Inoni (2006), Okeoghene et al, (2013) examined some determinants of yam production in particular regions in Nigeria. They also found that factors of production such as labor, finance and material inputs like fertilizer, among others have influenced yam production in the region.

The findings of the work would be a guide to all stakeholders and agricultural investors on the agricultural sector on the choice of right policy that will be environment friendly and gender specific; thereby reducing migration.

Also, the findings of this study would enable the government at all levels and other relevant agencies which had the duty and right to promulgate policies in the country to do those that will sustain the youths in the rural areas whose labor force are paramount in the practice of agriculture. It is therefore against this backdrop that this study was undertaken to: describe the socio-economic characteristics of yam farmers; ascertain the rate of rural-urban migration exhibited by the yam farmers; examine the causes of rural-urban migration by yam farmers; determine the effects of rural-urban migration by yam farmers; ascertain the types of yam varieties produced by the farmers and identify the problems of rural-urban migration faced by the yam farmers in the study area.

METHODOLOGY

Study Area:

Ezza South is one of the Local Government areas in Ebonyi State, Nigeria and with its headquarters at Onueke. It lies between latitude 6º 20/ North of the Equator and 8º 06/ East of the Greenwich Meridian. It has a total land area of 324km^2 and a population of 133,625 people as at the 2006 population census (NPC, 2006). Ezza South Local Government prior to its creation in 1st October, 1996, was part of the Old Ezza L.G.A. The people are predominantly of Igbo stock and they speak Ezza dialect and the central Igbo Language. The local government area has basically two distinct seasons: the rainy season which lasts from April to October, and the dry season which and the dry season which lasts from November to March each year. The temperature ranges from 27^{0c} to 32^{oc} and a mean monthly relative humidity of 70%. The rainfall ranges from 1,500-2,500 mm which supported the growth and survival of crops and livestock in the area. Its inhabitants are mostly farmers, craftsmen and civil servants. Among the crops grown in the area include; yam, cassava, cocoyam, rice, okro, cowpea, maize and sweet potatoes. They also rear some livestock such as goats and sheep on a free range; while some pigs are being kept on semi-intensive system; but all these are on a small-scale basis.

Sampling Procedure:

Multi-stage sampling technique was used in the collection of data by means of structured questionnaire. Firstly, three (3) communities were selected randomly out of the five (5) communities that make up the Local Government Area. This was based on their leading role in yam production and high proportion of migrants from the area. Secondly, five (50 Villages were selected randomly from each of the three (3) communities already selected in stage I. Thirdly, eight (8) yam farmers were selected randomly from each of the fifteen (15) Villages already selected in stage II. This gave a total of one hundred and twenty (120) respondents that were used for a detailed study. This also represents the sample size.

Analytical Techniques:

Data collected were analyzed using descriptive statistics and other relevant statistical tools so as to achieve the desired objectives.

Model Specification:

Descriptive Statistics:

These were used to analyze the Socio-economic data using frequency distribution tables, means and percentages. These tools of analysis were used to analyze objectives :(I) and (VI); while objectives: (III), (IV) and (V) were analyzed using 5-point Likert Scale Analysis. In addition, Objective (VI) was however complemented with the 5-point Likert Scale Analysis. Objective (II) was analyzed using rate of migration model.

Mean Score analysis on a 5-point Likert Scale:

The Likert Scale score is a method of ascribing quantitative values to qualitative perception to make them amenable to statistical analysis. The values of responses were added up and divided by 5 to obtain a Mean Score of 3.0 i.e. (5+4+3+2+2+1) = (15/5) = 3.0: Which is regarded here as a mean level of acceptance, while those with a mean score of less than 3.0, were rejected.

The mean acceptance score was determined as thus: Mean of each value item was computed by multiplying the frequency of positive response with its appropriate Likert nominal value and the sum was added to the sum of the number of the respondents. Then, from the formula:

$$\bar{X} = \sum fx/N$$

Where: $\bar{X}$ = **Mean Score**

$\sum$ = **Summation**

Fx= **Likert nominal Value of responses**

N= **Number of Observations**

RESULTS AND DISCUSSION

Socio-economic characteristics of respondents:

Analysis of descriptive statistics on the socio-economic variables of the respondents (Table I) revealed that majority (93.33%) of them were within the age-bracket of 20-60 years. This implies that they are still in their productive ages; which could result to boosting of yam output. This result agrees with the findings of Alabi et al (2005) who stated that farmer's age has great influence on maize production in Kaduna State; with younger farmers producing more than the older ones, plausibly because of their flexibility to new ideas and risks.

The table also showcased that both men and women were involved in yam production, but with 42.5% of the farmers being female, while 57.5% of them were male. It is to be noted that the preponderance of males to the females was due to the drudgery and labor intensive nature of yam cultivation, and therefore the need for simple labor-saving technology.

The table equally showed that 83.33% of the married couples were involved in yam production in the study area. This emphasizes the importance of yam as a source of food and income to the resource poor yam farmers who depend on it for their livelihood. However, for the 16.67% of those that were not married, yet they remained in the business because it is profitable.

Furthermore, 83.33% of the sampled respondents had one form of formal education or the other. Onyenweaku and Nwaru (2005) and Idiong et al (2006) opined that formal education has influence on the acquisition and utilization of information on improved technology by the farmers, as well as their innovativeness in adopting innovations.

The same Table I revealed that 75.83% of the respondents had farm size of between 0.1-2.0 hectares, with a mean of 1.25 ha. This portrayed their small-scale nature. But for the very few that have farm size between 2.5 ha. and above, means that they have established themselves in the business and so devoted more land in yam production.

Table I also depicted that greater number (84.17%) of the respondents in the area had long years of experience in yam production for about 5-20 years, and with a mean of 12.5. This implies that most of the yam farmers in the study area are well experienced in yam production.

In addition, yam farmers in the area have household sizes of between 4-20 members; especially with the mean of 12 members. However, under the peasant agriculture, much reliance is often placed on the strength of the household to supply the much-needed farm labor in the absence of mechanical equipment. The larger the household size, the greater the supply of family labor. This is in agreement with Ezeh and Nwachukwu (2010), who reported that family size has major implications on the provision of labor for farm work. It is however, to be noted that the usefulness of family size is reflected by the fact that it is a veritable source of farm labor which adds to cost-savings of the household; while boosting output.

Labour is very critical in all agricultural activities, especially among the peasant farmers in developing countries. No wonder Nwaru (2006) postulated that married couples who have children in their homes, invariably use them as a source of family labour in their farm operations; thereby reducing the costs of production to the bearest minimum . Thus, the use of family labor is a cash saving device which would add to both the output and profitability of the yam production.

Cooperative Membership lends credence a priori expectation because membership of farmer's groups has many advantages in terms of reduction of risks and uncertainties and to have cheaper source of credit and other important inputs needed in the production process as recorded by Babatunde et al (2008). Hence, Cooperative membership creates access to networks and opportunity to diversify income through boosting of output which will eventually lead to the profitability of the farm.

The average monthly farm income of 52.5% of the respondents was less than ₦20,000 benchmark, whereas 47.5% of them were earning more than ₦20,000 monthly. This shows that the respondents do not have enough money to expand their farm sizes which affected the output of yam and by extension, the profit because of their small-scale nature.

The rate of migration is the proportion of the number of migrants in a household to the household size. In which case, it is the quotient of household members not resident at home to the household size and is expressed in percentage.

Rate of Migration model is expressed thus:

Rate of Migration (M) = No of migrants in a household/Household Size X 100/1

Most of the households (40%) had a percentage migration rate of 26 and 50. Table 2 showed a mean migration rate of 48.67% which reveals that the rate of migration in the study area may be considered to be close to high. This result x-rays the decline of available labor for agricultural production in the study area; and this is in agreement with Dehaan (2002) and Osondu et al (2014) who posited that the rate of migration in Nigeria was high with about half (50%) of the households estimated to have had migrants.

Table 3 shows that among the variables analyzed, the following were accepted as the main causes of rural-urban migration in the study area having reached the decision point of 3.0 and above. These include; Unemployment (3.2); rural poverty (3.5); Conflict(3.0); Famine(3.4); Inadequate Social amenities(3.1); Crop failure(3.4); Scarcity of food(3.2); and Unfavorable Climate(3.0;). Only three (3) variables do not reach the decision point and they include: Lack of Infrastructures (2.0 ;) Shortage of land (2.1); and food security (2.4); Hence, those eight (8) variables outlined above were the main causes of rural-urban migration in the study area. Therefore addressing these issues would stem the tide of rural-urban migration in the study area. These findings support the assertions of Ayinde et al, (2014) who reported that absence of these social amenities and poverty were the major causes of youth migration from rural to urban centres in Bornu State.

Table 4 shows that among the variables, eight were selected as having reached the decision point of 3.0 and above, as the main effects of rural-urban migration in the study area. They include, growing urban crimes (3.4); Congestion/Overcrowding(3.3); uneven distribution of social amenities (3.0); uneven population growth (3.5); political instability (3.2); Increase in workload(3.5); Labour shortage (3.0); and Unplanned urbanization(3.4); However, three variables did not reach the decision point and these are; Natural resource depletion(2.3); Neglect of Agriculture (2.2;) and Environmental pollution (2.1); It can be seen that those eight variables mentioned above were the major effects of rural-urban migration in the area. Hence, addressing these challenges would reduce rural-urban migration in the study area. These findings is in agreement with the works of Mbah, et al, (2016) who posited that rural-urban migration leads to a heavy drain on the supply of rural family labor as the individuals who are the elements for agricultural development programmes are pulled out of the area lead to low productivity; since the work is left for the few who are aged and the under aged.

Table 5 shows that among all the variables analyzed, four were accepted having reached the decision point of 3.0 and above; and they include; Dioscorea alata (water yam) (3.4); Dioscorea rotundata (white yam) (3.5); Dioscorea cayensis (yellow yam) (3.3); Dioscorea bulbifera (aerial yam) (3.0). Only two variables did not reach the decision point of 3.0, and these are Doscorea esculenta (Chinese yam)(2.4); and Dioscorea dumentorum (trifoliate yam)(2.3); From the results, it can be observed that white yam and water yam are the most cultivated varieties of yam in the study area, than the other species. These findings also support the study by Ayinde et al, (2014) who revealed that majority (80%) of yam farmers in the area cultivate more of white yam (D. rotundata) and water yam (D. alata); than any other varieties.

Table 6 shows that among all the variables analyzed, fifteen (15) were accepted for having reached the decision point of 3.0 and above; and these include all, except the following; inadequate storage facilities (2.1); Unstable government policies (2.2); Uncontrolled grazing land (2.4) and poaching of livestock in the area (2.2), all failed to reach the decision point of 3.0.

It should be noted that decline in soil fertility which resulted to low productivity and also poor market outlets were reported to be worst problems encountered, as both had a decision point of 3.5. However, low soil fertility as asserted by Oonyu (2011) may perhaps be linked to the continuous farming year by year as well as soil erosion; thereby leading to the soil not been able to support high crop yield.

These were closely followed by poor access to extension services, high illiteracy level and bad road which had their decision point at (3.4); each. Extension Services as recorded by (Slam et al, 2017) is a vehicle for disseminating agricultural information to farmer and in guiding them in identifying their information needs and profer solutions through linkages to sources of the information. In addition, access to extension training by farmers help to impact into them (farmers) proper managerial knowledge and skills to efficiently implement production undertakings in order to raise their farm yield. However, Okoye et al (2010) reported that poor extension outreach could deny the farmers necessary linkage to research institutions for improved technologies resulting to poor farm output. Educated people are more receptive to new ideas and therefore more likely to adopt new technologies meant to increase output than their uneducated counterparts. This is in agreement with Effiong (2005) who also had a positive coefficient in education in a related study.

These were also followed by inadequate capital and high cost of fertilizer which had their decision point at 3.3 each. Financial resource is another major constraint to yam production as farmers are poor, and they suffer from limited access to credit facilities; thereby impeding higher productivity and output (Izekor and Olumese, 2010). Thus, lack of adequate provision for agricultural loans from the financial institutions to producers has constrained sustainable yam cultivation in Nigeria. In the same vein, unavailability and high cost of fertilizer as a result of diversion to the neighboring states and countries could be cited for the high cost of this important resource (Amaechina and Eboh, 2017). The effect of unavailability of fertilizers have caused many farmers to waste their precious time in transporting themselves to distant markets in search of this essential commodity to the detriment of their farm work. Also, Ibekwe et al, (2012) reported that the high cost and unavailability of fertilizers in Nigeria, especially the inorganic fertilizer could be correlated to the removal of "Fertilizer Subsidy Programme" by the Federal Government of Nigeria.

High cost of labour, lack of incentives to yam farmers and lack of technical know-how were the next important constraints in yam production in the study area with a decision point of 3.2 each. Several studies by (Okoye et al, 2010; FAO, 2014; Kadir et al, 2015 and Ume et al, 2018) reported the unavailability and high cost of labor in most countries in sub-Sahara Africa. However, Nigerian situation could be linked to among other things; economic recession as labourers charge exorbitantly to survive and as well as rural-urban drift of able-bodied youths in search of greener pastures leaving farming the feeble and the aged and their children. Of course, we all know the impact of incentives in the lives of a farmer or producer and more so, when it is backed up with the technical knowhow.

In a related development, high cost of seed yams and poor access to credit were among the

important constraints to yam production which had a decision point of 3.1 each. It is to be noted that credit assists in agricultural development by facilitating the farmers in procuring farm inputs needed at adequate quantities and at the right time (Tanko and Mbanasor, 2000). However, Effiong and Idiong, 2008)opined that timely procurement of farm inputs helps to avoid price fluctuations that are commonly associated with late input purchase, thereby affecting the farmers' production frontier. Although seed yams been majorly used, but very expensive than the planting materials obtained from mini-set technique (Fasasi, 2006) has stated that the farmers given their meager capital base, may not be able to expand so much on seed yam which signifies under-investment.

The last but not the least was poor communication network and high cost of agro-chemicals which had decision point of 3.0 each. According to Abbas et al, (2008) lack of information adapted to local needs and technical knowledge at farm level are the principal factors for the low yield and static production of farmers. Olaniyi, (2013) however, reported that the major task of agricultural development is the transfer of improved technologies to farmers. He further stated that although agricultural extension agent have been disseminating information through the use of communication methods such as farm and home visits, the use of contact farmers, mass media, etc; these methods are now limited and therefore calls for the use of new emerging information and communication technologies by agricultural information providers for the benefit of farmers. Hence, dissemination of adequate agricultural information to grassroots enhances productivity. Agro-chemicals are the stepping stones to farmer's success in agriculture if it is made affordable, available and at the right time too.

CONCLUSION

Yam is a staple food for the majority of Nigerians. Evidence from the study revealed that both married men and women were involved in yam production in the study area; even though males predominates the females. Most of them were still in their economic active ages of between 20-60 years, and also have one form of formal education or the other. The rate of migration in the area was close to high and with a mean migration rate of 48.67%. Of the main causes of rural-urban migration in the area; rural poverty, famine, crop failure, unemployment and scarcity of food were very devastating. Also, of all the effects of rural-urban migration; Uneven population growth, increase in work load, unplanned urbanization, Growing urban crimes, congestion and political instability had the worst disastrous effects on the area. The commonly cultivated yams in the area were white yam (D. rotundata) and water yam (D. alata).

The major challenges encountered that needed to be addressed urgently in order to boost output, as well as increase profits and also stem the tide of rural-urban migration in the area were; Low productivity, Poor market outlets, poor access to extension services, high illiteracy level, bad road networks, inadequate capital and high cost of fertilizers; among others.

Governments in Nigeria through their various agencies such as Ministry of Agriculture and Rural Development should in certain situations provide seed yams, fertilizers, agro-chemicals, and other inputs to yam farmers at affordable prices in the area in order to increase production and yield. In addition, aggressive infrastructural development should be put in place in the study area by the Government in power so as to encourage the rural dwellers to remain there and practice agriculture; thereby helping to reduce rural-urban migration.

REFERENCES

Abbas, M; Lodhi, T.E; Bashir A and Mahmood, M.A (2008): Dissemination of wheat production techniques and interface of outreach efforts with farmers: *Journal of Agricultural Research*: 46(1): 99-108.

Adewale, J.G (2005): Socio economic factors associated with Rural-urban migration in Nigeria. A Case Study of Oyo State; Nigeria: *Journal of Human Ecology* 17(1):13-16.

Afolabi, M.O. (2007): Rural-Urban migration and productivity In the Nigerian Agricultural Sector. Unpublished MPP project. Faculty of Arts and social sciences. Simon Fraser University, Burnaby, B.C . Canada.

Agwu, A.E. and Alu, J.I. (2005): Farmer's perceived constraints to yam production in Benue State, Nigeria. *Proceedings of the 39th Annual Conference of Agricultural Society of Nigeria (ASN); held at the University of Benin*, from 9th-13thOctober, 2005; PP34-50.

Alabi, R.A. and Aruna, M.B. (2005): Technical Efficiency of family Poultry production in Niger-Delta. *Journal of Central European Agriculture* 6(4): 531-538.

Amaechina, E.C. and Eboh, E.C. (2017): Resource-use Efficiency in rice production in the lower Anambra irrigation Project. *Nigerian Journal of Development and Agricultural Economics*: 9(8): 234-242.

Ayinde, J.O; Torimiro, D.O. and Koledoye, C.F (2014): Youth migration and Agricultural Production: Analysis of farming communities in Osun State, Nigeria: *Journal of Agricultural Extension*. 18(1): 137-143.

Babatunde, R.O: Olorunsanya, E.O. and Adejola, A.D. (2008): "Assessment of Rural Household

Poverty: Evidence from South-western, Nigeria" *American-Eurasian Journal of Agriculture and Environmental Sciences*: 3(6): 900-905.

Bamire, A.S; and Muyoyegbe, B.J. (2005): Economic analysis of land improvement techniques in small-holder yam based population systems in the agro-ecological zones of south-western, Nigeria. *Journal of Human Ecology*. 18(1): 1-12.

Dehaan, A. (2002): Migrant livelihood and Rights: The relevance of migration in Development Policies, Social Development working paper No.4. Department for International Development, London.

Effiong, E.O. (2005): Efficiency of production in selected livestock enterprise in Akwa Ibom State, Nigeria. Unpublished PhD Dissertation (2005); Department of Agricultural Economics, Michael Okpara University of Agriculture, Umudike, Abia State.

Effiong, E.O. and Idiong, C.I. (2008): Measurement and sources of economic efficiency in rabbit production in Akwa Ibom State, Nigeria. A stochastic frontier profit function approach. *Nigeria Agricultural Journal* 4(1): 5-8.

Ezeh, C.I and Nwachukwu, I.N. (2010): Micro-level impact of National Fadama II Project on rural poverty in Imo State, Nigeria. *African Journal of food, Agriculture, Nutrition and Development*. 10(9) 4016-4031.

FAO (2014): The State of food and Agriculture: Innovations in family farming. The food and Agriculture Organisation of the UN, Rome.

Fasasi, A.R. (2006): Resource use efficiency in yam production In Ondo State, Nigeria. *Agricultural Journal* 1(2): 36-40.

Ibekwe, U.C; Orebiyi, J.S; Ukoha, E.C; Nwagbo, E.C. and Chidiebere-mark, N. (2012): Resource Use efficiency in cassava production in South-East, Nigeria. *Asian Journal of Agricultural Extension, Economics and Sociology*. 1(1): 16-21.

Idiong, I.C. (2006): "Evaluation of Technical, Allocative and Economic efficiencies in Rice Production systems in Cross River State, Nigeria" PhD Dissertation Department of Agricultural Economics; Michael Okpara University of Agriculture, Umudike, Nigeria. 75pp.

Ike, P.C. and Inoni, O.E. (2006): "Determinants of yam production and Economic Efficiency among small-holder farmers in South-Eastern, Nigeria". *Journal of Central European Agriculture* 7(2): 337-425.

IITA (2009): Healthy Seed Yam Production. IITA Publications. Retrieved from IITA Website http://www.iita.org.publications.

Izekor, O.B. and Olumese, M.I (2011): Determinants of yam production and profitability in Edo State, Nigeria. *African Journal of General Agriculture*. 6(4): 62-69.

Kadiri, F.A; Eze, C.C; Orebiyi, J.S. and Onyeagocha, U.O (2015): Resource-Use and Allocative Efficiency of Paddy Rice Production in Niger-Delta Region of Nigeria. *Global Journal of Agricultural Research* 2(1): 11-18.

Kirwin, M. and Anderson, J. (2018): Identifying the factors driving West-African migration. *West African Papers, Paris*, DECD publishing.

Lall, S.V; Selod; H and Shaliz, Z. (2006): Rural-urban migration in developing countries: A survey of theoretical predictions and empirical findings. *World Bank Policy Research Working paper 3915*. The World Bank, Washington, D.C.

Mbah, E.N; Ezeano, C.I. and Agada, M.O. (2016): Effects of rural-urban Youth Migration on farm families in Benue State, Nigeria.

NBS (2012): National Bureau of Statistics: Integrated surveys on agriculture: General household survey panel. Available at www.nigerianstat.gov.ng/pages/download/194.

NPC. (2006): National Population Commission, Abuja.

Nwajiuba, C.U (2005): International migration and livelihoods In South-east, Nigerian. *Global commission on International Migration*, Geneva.

Nwaru, J.C. (2006): Comparative Analysis of the mean output of cassava and profits by men and women in cassava production systems in Abia State, Nigeria. *The Nigerian Agricultural Journal* 3(2): 147-151.

Nwokocha, E.E. (2007): Engaging the burden of Rural-urban migration in a non-regulatory System: The case of Nigeria. *South-South Journal of Culture and Development*.

Ofuoku, A.U. (2012): Rural –Urban migration in Delta State, Nigeria. Implications for agricultural Extension service. *Global Journal of Science, Frontier Research, Agriculture and Veterinary Sciences* 12(6): 1-5.

Okeoghene, E.S; Egbodion, J. and Ose, O.O. (2013): Profitability Analysis of yam production in Ika South Local Government Area of Delta State, Nigeria. *Journal of Biology, Agriculture and Healthcare*. 3(2): 118-130.

Okoye, B.C; Onyenweaku, C.E and Okorie, K.C. (2010): Determinants of fertilizer adoption rate by rice farmers in Bende Local

Government Area of Abia State, Nigeria. *The Nigerian Agricultural Journal* 41(2): 1-6.

Olaniyi, O.A. (2013): Assessment on utilization of information and communication technologies (ICTs) Among Poultry farmers in Nigeria. An emerging challenge. *Transitional Journal of Science and Technology*: 3(60): 29-43.

Olubukola, A.A and Bolarin, T.O. (2006): Production Efficiency in yam-based enterprise in Ekiti state, Nigeria. *Nigerian Journal of Central European Agriculture*. 7(4): 627-636.

Onyenweaku, C.E; and Nwaru, J.C. (2005): Application of a stochastic frontier production functions to the measurement of technical efficiency of food crop production in Imo State, Nigeria. *The Nigerian Agricultural Journal*: 36(1): 12-16.

Oonyu, J. (2011): Upland Rice growing: A potential solution to declining crop yields and the Degradation of the Doho wetlands, Butaleja District in Uganda. *African Journal of Agricultural Research*. 6(12): 2774-2783.

Osundu, C.K; Ibezim, G.M.C; Obike, K and Ijeomah; J.C. (2014): Rural-Urban migration, remittance economy and agricultural investment Among small-scale farmers in Umuahia South Local Government Area of Abia State, Nigeria. *Sky Journal of Agricultural Research*. 3(4): 062-066.

Oyakhilomen, .O. and Zibah, R.G (2014): Agricultural Production and Economic Growth in Nigeria. Implication for Rural Poverty Alleviation. *Quarterly Journal of international Agriculture*; 53(4): 207-223.

Sanchez, G. (2017): Critical Perspectives on clandestine Migration facilitation: An Overview of migrant smuggling research. *Journal on migration and Security*: 5(1): 9-27.

Sanusi, R.A. And Salmong, C.A. (2006): Measuring Household food Security in selected Local Government Areas of Lagos and Ibadan, Nigeria. *Journal of Nutrition*. 5(1): 62-67.

Slam, Z; Begum, R; Sharmin, S; and Khan, A. (2017). Profitability and Productivity of Rice Production in selected Coastal Areas of Satkhira District in Bangladesh. *International Journal of Business, Management and Social Research*; 3(1): 148-153.

Tanko, L and Mbanasor, J.A. (2000): Determinants of fertilizer Demand in Kebbi State, Nigeria. *Nigerian Journal of Agriculture and Rural Development*: 1(1): 69-79.

Ume, S.I; Ezeano, C.I; Chukwuigwe, O. and Gbughemobi, B.O. (2018): Resource use and technical efficiency of Okra Production among female headed households. Implication for poverty alleviation in the rural areas of south-east, Nigeria. *International Journal of Advanced Research and Development*. 3(2): 1028-1040.

Vercueil, J. (2004): Agriculture and rural-urban Migration in developing countries: In-Nebme, N. (ED). Proceedings No.15 of the Agricultural Policy Forum. *National Agricultural Policy Center, Damascus*.

Verter, N. and Becvarova, V. (2014): Yam production as pillar of food security in Logo Local Government Area of Benue State, Nigeria. *European Scientific Journal*; 10(31): 27-42.

Zaknayiba, D.B. and Tanko, L. (2013): Costs and Returns Analysis of Yam Production among small-scale farmers in Kuru Local Government Area of Nasarawa State, Nigeria. PAT; 9(1): 73-30.

Table 1: Socio-economic characteristics of respondents

Age (Years)	**Frequency**	**Percentage (%)**
1 – 20	8	6.67
21 – 30	12	10.00
31 – 40	20	16.67
41 – 50	30	25.00
51 – 60	50	41.66
Total	**120**	**100.00**
Gender		
Male	69	57.50
Female	51	42.50
Total	**120**	**100.00**
Marital Status		
Single	20	16.67
Married	60	50.00
Divorced	10	8.33
Widow	30	25.00
Total	**120**	**100.00**
Educational Level (Years)		
No formal education	20	16.67
Primary education	30	25.00
Secondary education	20	16.67
Tertiary education	50	41.66
Total	**120**	**100.00**
Household size(NO)		
1 – 4	18	15.00
5 – 8	30	25.00
9 – 12	28	23.33
13 – 16	24	20.00
17 – 20	20	16.67
Total	**120**	**100.00**
Farming Experience (Years)		
1 – 5	31	25.83
6 – 10	37	30.83
11 – 15	33	27.51
16 – 20	19	15.83
Total	**120**	**100.00**

Farm Size (ha)		
0.1 - 0.5	16	13.33
0.6 – 1.0	25	20.83
1.1 – 1.5	24	20.00
1.6 – 2.0	25	20.83
2.1 – 2.5	30	25.01
Total	**120**	**100.00**
Source of Labour		
Family labour	65	54.17
Hired labour	55	45.83
Total	**120**	**100.00**
Cooperative Membership		
Member	58	48.33
Non-Member	62	51.67
Total	**120**	**100.00**
Annual Farm Income (₦)		
50,000 – 100,000	29	24.17
150,000 – 200,000	34	28.33
250,000 – 300,000	22	18.33
350,000 – 400,000	35	29.17
Total	**120**	**100.00**

Source: Field survey, 2021.

Table 2: Distribution of respondents according to the rate of migration in the rural households

Rate of Migration (%)	**Frequency**	**Percentage(%)**
1 – 25	30	25.60
26 – 50	48	40.00
51 – 75	22	18.33
76 – 100	20	16.67
Total	120	100.00

Source: Field Survey, 2021.
Mean Migration Rate = 48.67%

Table 3: Causes of rural-urban migration in the area

Variables	Mean Scores	Decision Point
Unemployment	3.2	Accepted
Lack of infrastructures	2.0	Rejected
Shortage of land	2.1	Rejected
Food security	2.4	Rejected
Rural poverty	3.5	Accepted
Conflict	3.0	Accepted
Famine	3.4	Accepted
Inadequate social amenities	3.1	Accepted
Crop failure	3.4	Accepted
Scarcity of food	3.2	Accepted
Unfavourable climate	3.0	Accepted

Decision Rule: ≥ 3.0 is Accepted; ≤ 3.0 is Rejected
Source: Field survey, 2021

Table 4: Effects of rural-urban migration in the study area

Variables	Mean Scores	Decision Point
Natural resources depletion	2.3	Rejected
Environmental pollution	2.1	Rejected
Growing urban crimes	3.4	Accepted
Congestion (Overcrowding)	3.3	Accepted
Uneven distribution of social amenities	3.0	Accepted
Neglect of Agriculture	2.2	Rejected
Uneven population growth	3.5	Accepted
Political instability	3.2	Accepted
Increase in workload	3.5	Accepted
Labour shortages	3.0	Accepted
Unplanned urbanization	3.4	Accepted

Decision Rule: ≥ 3.0 is Accepted; ≤ 3.0 is Rejected
Source: Field survey, 2021

Table 5: The types of yam varieties cultivated by the farmers in the study area

Varieties of yam	Mean Scores	Decision Point
Dioscorea alata (Water yam)	3.4	Accepted
Dioscorea rotundata (White yam)	3.5	Accepted
Dioscorea cayenesis (Yellow yam)	3.3	Accepted
Dioscorea esculenta (Chinese yam)	2.4	Rejected
Dioscorea bulbifera (Aerial yam)	3.0	Accepted
Dioscorea dumentorum (Trifoliate yam)	2.3	Rejected

Decision Rule: ≥ 3.0 is Accepted; ≤ 3.0 is Rejected
Source: Field survey, 2021

Table 6: The problems of rural-urban migration faced by the yam farmers in the study area

Variables	Mean Scores	Decision Point
Land tenure system	3.0	Accepted
Inadequate capital	3.3	Accepted
High cost of seed yam	3.1	Accepted
High cost of fertilizer	3.3	Accepted
Inadequate storage facilities	2.1	Rejected
Pests and disease infestation	3.1	Accepted
Decline in soil fertility/low productivity	3.5	Accepted
Bad road networks	3.4	Accepted
Unstable government policies	2.2	Rejected
Poor communication networks	3.0	Accepted
Poor market outlets	3.5	Accepted
Lack of incentives to yam farmers	3.2	Accepted
Uncontrolled grazing land	2.4	Rejected
High illiteracy level	3.4	Accepted
Lack of technical know-how	3.2	Accepted
Poaching of livestock in the area	2.2	Rejected
High cost of agro-chemicals	3.0	Accepted
Poor access to credit	3.1	Accepted
Poor access to extension services	3.4	Accepted

Decision Rule: ≥ 3.0 is Accepted; ≤ 3.0 is Rejected

Source: Field survey, 2021.

Keys: VGE = Very Great Extent; GE = Great Extent; NE = No Extent; LE = Low Extent and VLE = Very Low Extent.